

Dual stack optical data storage medium and use of such mediumMDS
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The invention relates to a dual-stack optical data storage medium for at least read out using a focused radiation beam with a wavelength λ between 400 nm and 410 nm and an Numerical Aperture (NA) between 0.84 and 0.86, entering through an entrance face of the medium during read out, comprising:

- 5 -a substrate with present on a side thereof:
 - a first stack of layers named L0, comprising a first information layer,
 - a second stack of layers named L1, comprising a second information layer,L1 being present at a position closest to the entrance face and L0 more remote from the entrance face than L1,
- 10 -a radiation beam transparent spacer layer between L0 and L1,
- a radiation beam transparent cover layer between the entrance face and L1
- a transmission stack named TS0 with a thickness d_{TS0} and an effective refractive index n_{TS0} containing all layers between L0 and the entrance face,
- a transmission stack named TS1 with a thickness d_{TS1} and an effective
- 15 refractive index n_{TS1} containing all layers between L1 and the entrance face.

The invention also relates to the use of such medium.

20 An embodiment of such an optical recording medium is known from a paper "New Replication Process Using Function-assigned Resins for Dual-layered Disc with 0.1 mm thick Cover layer", by K. Hayashi, K. Hisada and E. Ohno, Technical Digest ISOM 2001, Taipei, Taiwan. A minimum spacer layer thickness of 30 μm was disclosed.

25 There is a constant drive for obtaining optical storage media suitable for recording and reproducing, which have a storage capacity of 8 Gigabyte (GB) or larger. This requirement is met by some Digital Video Disk or sometimes also Digital Versatile Disk formats (DVD). DVD formats can be divided into DVD-ROM that is exclusively for reproduction, DVD-RAM, DVD-RW and DVD+RW, which are also usable for rewritable data storage, and DVD-R, which is recordable once. Presently the DVD formats comprise disks with capacities of 4.7 GB, 8.5 GB, 9.4 GB and 17 GB.